

VOLTAGE BOOSTING CIRCUIT AND METHOD OF GENERATING BOOSTING
VOLTAGE, CAPABLE OF ALLEVIATING EFFECTS OF HIGH VOLTAGE STRESS

ABSTRACT OF THE DISCLOSURE

5 A voltage boosting circuit and a method of generating a boosting voltage alleviate
deterioration of a driver transistor caused by high voltage stress when the level of an external
supply voltage is high. The voltage boosting circuit includes boosting capacitors and
switches. The boosting capacitors include a first boosting capacitor connected to a driving
node and a last boosting capacitor that outputs the boosting voltage. The switches connect
10 the boosting capacitors in series in response to a control signal. The boosting voltage
increases or decreases as the voltage level at the driving node changes according to the logic
state of a boosting level control signal. The boosting level control signal is responsive to the
external supply voltage level. An external supply voltage detector detects the level of
external supply voltage level and generates the boosting level control signal.